

538 284
10/538284

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
15 July 2004 (15.07.2004)

PCT

(10) International Publication Number
WO 2004/059690 A1

(51) International Patent Classification⁷: H01J 37/06,
G03F 9/00

(21) International Application Number:
PCT/KR2003/002900

(22) International Filing Date:
30 December 2003 (30.12.2003)

(25) Filing Language: Korean

(26) Publication Language: English

(30) Priority Data:
10-2002-0087224
30 December 2002 (30.12.2002) KR
10-2002-0087226
30 December 2002 (30.12.2002) KR

(71) Applicant (for all designated States except US): CEBT
CO., LTD. [KR/KR]; 100 Karsan-ri, Tangjeong-myeon,
336-708 Asan-si, Chungcheongnam-do (KR).

(72) Inventors; and

(75) Inventors/Applicants (for US only): KIM, Ho Seob

[KR/KR]; 114-1104, LG-SK Apt., Cheongsoo-dong,
330-190 Chonan-si, Chungcheongnam-do (KR). AHN,
Seung Joon [KR/KR]; 206-2002, Hyundai Durae Apt.,
Shinbang-dong, 330-260 Chonan-si, Chungcheongnam-do
(KR). KIM, Dae Wook [KR/KR]; 309-1605, Ilsung
Nungsoo Apt., Sangyong-dong, 330-090 Chonan-si,
Chungcheongnam-do (KR).

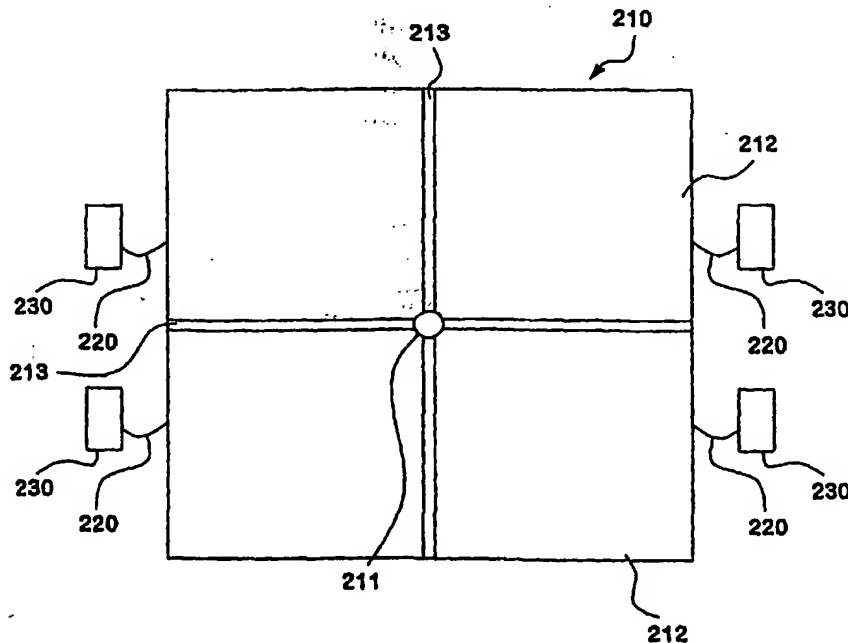
(74) Agent: PARK, Kyung Jae; 177-10, Gahoe-Dong, Chon-
gro-ku, Seoul 110-260 (KR).

(81) Designated States (national): AE, AG, AL, AM, AT, AU,
AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO,
CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB,
GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG,
KP, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK,
MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT,
RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR,
TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(84) Designated States (regional): ARIPO patent (BW, GH,
GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW),
Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM),
European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE,
ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE,

[Continued on next page]

(54) Title: AN EXTRACTOR FOR AN MICROCOLOUM, AN ALIGNMENT METHOD FOR AN EXTRACTOR APERTURE
TO AN ELECTON EMITTER, AND A MEASURING METHOD AND AN ALIGNMENT METHOD USING THEREOF



(57) Abstract: The present invention provides a new extractor for a micro-column and an alignment method of the aperture of said extractor and an electron emitter for a micro-column. Further, the present invention provides a measuring system, a method for measuring, and an alignment method using the principle of said alignment.

WO 2004/059690 A1